APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,368	10/31/2003	Marcel-Catalin Rosu	YOR920030508US1	3047

7590   01/23/2008

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ART UNIT	PAPER NUMBER
2121	

MAIL DATE	DELIVERY MODE
01/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/699,368	ROSU ET AL.
	Examiner	Art Unit	
	Darrin Dunn	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 October 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>*1-17 and 19-38*</u> is/are pending in the application.

    4a) Of the above claim(s) <u>*18*</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>*1-17 and 19-38*</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>31 October 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is responsive to the communication filed on 10/25/2007.

2.   Claims 1-17 and 19-38 are presented for examination. Claim 18 is withdrawn from

consideration.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-17 and 19-38 are rejected under 35 U.S.C. 102(e) as being anticipated by

Boivie et al. (USPN 6625773).

5.   As per claims 1 and 23, Boivie et al. teachers a method for distributing content to a

plurality of receivers, wherein said content is packetized into one or more packets, comprising:

establishing a multicast distribution tree rooted –multicast tree ([FIG 1], [COL 3 lines 26-

27]) at a sender –source node A ([COL 3 line 33]); and

directing the transmission of one or more packets ([COL 4 lines 4-16] e.g., packets

addressed to list of destinations) along at least a portion   ([FIG 1], [COL 4 line 9] e.g.,

respective paths of tree) of the multicast distribution tree.

wherein the at least a portion of the multicast distribution tree along which the one or more

packets travel is varied by the sender on a packet-by-packet basis ([COL 5 lines 51-58] e.g.,

source controls method of packet delivery.)

6.   As per claims 2, 11, 24, and 33, Boivie et al. teaches the method of claim 1, wherein

the step of directing the transmission further comprises:

encoding each of the one or more packets with at least a portion of said multicast

distribution tree ([COL 4 lines 8-14]), wherein the multicast distribution tree identifies the

receiver – R1 ([COL 4 line 9]) to which each packet is to be delivered and the path along which

each packet is to travel to the receiver – address of R1 ([COL 4 line 9])

7.   As per claims 3 and 25, Boivie et al. teaches the method of claim 2, wherein the

multicast distribution tree is sender-defined ([COL 3 lines 33-37])

8.   As per claims 4,12, 26, and 34, Boivie et al. teaches the method of claim 1, wherein the

step of directing the transmission comprises:

sending one of said one or more packets to a first group of receivers –R1, R2, R3 ([COL 4

lines 36-40]) ;

creating at least one copy of the packet by at least one of said first group of

receivers – replicating packets ([COL 4 lines 24-25]); and

forwarding at least one copy of the packet to at least one receiver in a subsequent level – R3-

R4 or R3- R5 ([FIG 1], [COL 4 lines 41-46]) within said multicast distribution tree.

9.   As per claim 5, 13, 21, 27, and 35, Boivie et al. teaches the method of claim 1, wherein

each receiver that is not

a final destination for said one or more packets copies and forwards said one or more received

packets to a subsequent receiver in accordance with said at least a portion of the multicast

distribution tree ([COL 4 lines 36-54])

10.   As per claims 6,14, 22, 28, and 36 Boivie et al. teaches the method of claim 2, further

comprising:

encoding at least some of the one or more packets with forward error correction

coding -checksum ([COL 6 lines 60-68], [COL 7 lines 1-26]).

11.   As per claims 7, 15, 29, and 37, Boivie et al. teaches the method of claim 4, wherein

transmissions from sender-to-receiver – source uni-casting ([COL 5 lines 47-48]) and receiver-

to-receiver –uni-casting for last hop ([COL 4 lines 55-56]) are individually accomplished using

unicast distribution communication.

12.   As per claims 8, 16,30, 31, and 38 Boivie et al. teaches the method of claim 1, wherein

the step of establishing a multicast distribution tree comprises:

adjusting a structure of the multicast distribution tree to address a given metric, wherein said

metric is at least one of cost, delay, bandwidth, latency or reliability ([COL 4 lines 61-67], [COL

5 lines 1-7] e.g., bandwidth is conserved via sending packets to a given next hop by eliminating

unnecessary packets).

13.   As per claims 9 and 32, Boivie et al. teaches a method for distributing content to a

plurality of receiver, wherein said content is packetized into at least one packet, comprising:

establishing a multicast distribution tree rooted –multicast tree ([FIG 1], [COL 3 lines 26-

27]) at a sender –source node A ([COL 3 line 33]); and

directing the transmission of one or more packets ([COL 4 lines 6-16] e.g., packets

addressed to list of destinations) along at least a portion   ([FIG 1], [COL 4 line 9] e.g.,

respective paths of tree) of the multicast distribution tree.

wherein the receivers to which the at least one packet is sent, and the paths along which the

at least one packet is sent to the receivers, are defined by the sender ([COL 3 lines 33-41])

14.   As per claim 10, Boivie et al. teaches the method of claim 9, wherein at least a portion of

the multicast distribution tree along which the one or more packets travel is varied on a packet-

by-packet basis -modified list of destinations ([COL 4 lines 26-29], [COL 5 lines 8-12])

15.   As per claim 17, Boivie et al. teaches a system for distributing content to a computer

network comprising:

a server –16 ([FIG 2], [COL 7 lines 57-60] adapted for sending at least one data packet,

where said at least one data packet contains at least a portion of a multicast distribution tree

defined by the server for distributing the at least one data packet to at least a first group of

receievers ([COL 3 lines 61-65], [COL 4 lines 8-15]);

wherein both the server and first group of receivers each comprise a packet forwarding

mechanism – ([COL 4 lines 41-45] e.g., receivers R3-R5 provide for forwarding packets. It is

further implied that the server is adaptable to forward packets based because nodes may be

adapted to function in accordance with the invention [COL 7 lines 51-55])

16.   As per claim 19, Boivie et al. teaches the method of claim 17, wherein the distribution

tree defines receivers –R1-R9 ([FIG 1]) to which the at least one data packet is directed and the

paths – address of R1 ([COL 4 line 9]) along which the at least one data packet travels to the

receivers.

17.   As per claim 20, Boivie et al. teaches the method of claim 17, wherein the system is

adapted to distribute content on a packet-by-packet basis - modified list of destinations ([COL 4

lines 26-29], [COL 5 lines 8-12])

Response to Amendment

18.   Objection to the drawings under 37 C.F.R 1.84(p)(5) are withdrawn

19.   Objection to claim 17 for informalities has been withdrawn.

Response to Arguments

20.   Applicant's arguments with respect to claims 1-17 and 19-38 have been considered but

are moot in view of the new ground(s) of rejection.

21.   As per claims 1, 9, 23, and 32, applicant argues the sender in Boivie may define who

receives a packet, but the sender has no control over how the packet get to the receivers. With

respect to Boivie, the system teaches a sender that is able to control how a packet arrives at a

destination via either 1] removing the destination from a unicast list and/or implementing unicast

in the event routing topology changes, supra claim 1. The claim terminology 'portion' is not

defined. The degree and to what extent a 'variation' occurs is not defined. The term ' basis' in

reference to a packet is further not elaborated as to further prosecution.

Conclusion

22.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Darrin Dunn whose telephone number is (571) 270-1645. The

examiner can normally be reached on EST:M-R(8:00-5:00) 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD   David Vincent
01/18/2008   Supervisory Patent Examiner
                                            Art Unit 2121

RONALD HARTMAN, JR.
PRIMARY EXAMINER
1/20/2008